

The effect of fabric type on Quality Different Sewing Techniques

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Abstract:

Today, the world is going through a wide range of successive variables, including all economic, social and technological trends, which have effectively affected all areas of industry in general in light of the technological and industrial revolution which plays an important role in several fields, which is based on providing the different needs of each industry of raw materials, which have a significant impact Importance in product quality and manufacturing in general The clothing industry is one of the most important and most rapidly changing and diversified industries, which encouraged clothing producers and workers in the field to modernize and develop that industry and upgrade according to specific standards of quality and recognized internationally Globally (13), Therefore, it was necessary to apply different quality standards to the garment industry, which has a direct impact on the quality of production, the most important of which is the quality of knitting techniques that play an important role in the manufacturing process. The quality of knitting techniques varies according to the type of fabric used. Quality of various knitting techniques

Keywords:

Types of fabrics - Quality - Knitting techniques

Research problem:

The research problem is illustrated by an attempt to measure the effect of different type of fabric used on the quality of different knitting techniques such as cotton, linen and rayon fabrics in an attempt to improve the quality of knitting techniques and measure their impact on the shape of the finished product.

research importance:

1. Contribute to raising the quality of the final product.

research aims:

- 1 - Measuring the impact of the type of fabric on the quality of different seams of the piece executed
- 2 - Improve the quality of knitting implemented on different types of fabrics

Research hypotheses:

- 1- There are statistically significant differences between the results of the tests on the samples implemented for different knitting techniques.
- 2 - There are statistically significant differences between the appearance of cloth and knitting technique used.

Research Methodology:

The research will follow the experimental analytical method to suit the subject of the research through the work of a set of techniques on different types of fabrics to reach the appropriate type of material to ensure the quality of the final product through some tests on the samples carried out

Theoretical framework for research:

The quality of knitting is one of the most important factors affecting the quality of the final product.

Knitting process:

Knitting is a collection of two pieces of fabrics and connected to each other by industrial knitting machines and the type of machine varies depending on the form of knitting implemented by the piece of clothing and also varies the type of thread used by the machine depending on the different material on which knitting

Classification of fabrics used in the field of garments:

Fabrics are a group of threads interwoven together in a certain overlapping style, and the properties of the fabric produced and also how they are used in appropriate clothing are influenced by the technique of overlapping yarns together.

the quality:

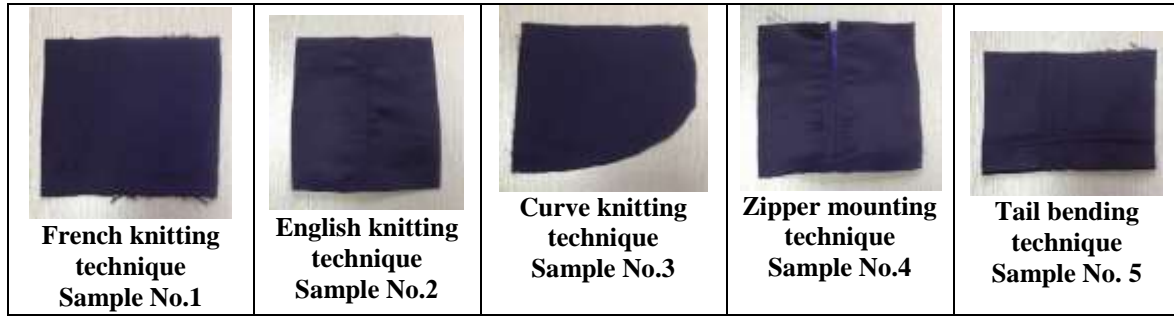
The term quality has many synonyms as defined by many researchers as a set of qualities and characteristics that contribute to the production of a commodity of an appropriate level with lower costs and lower consumption exhausts in order to develop the proportion of sales, that is, the quality is appropriate for use and low percentage of defects and low percentage of damage or Loss and re-operation, low customer complaints, can also be defined as taking measures to control production and this requires the establishment of standards that determine the cost, quality and performance and then compare the product with those standards and identify the correct procedures necessary when problems arise and planning to improve Ware Product

Practical experiments for research:

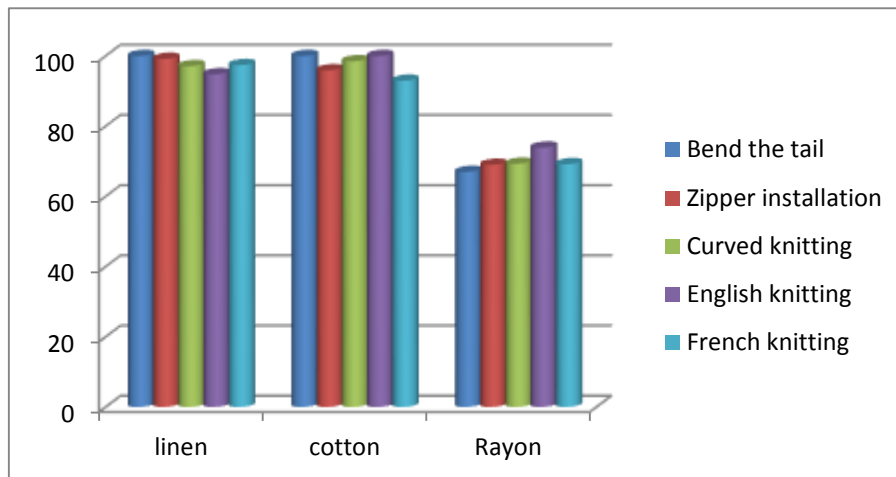
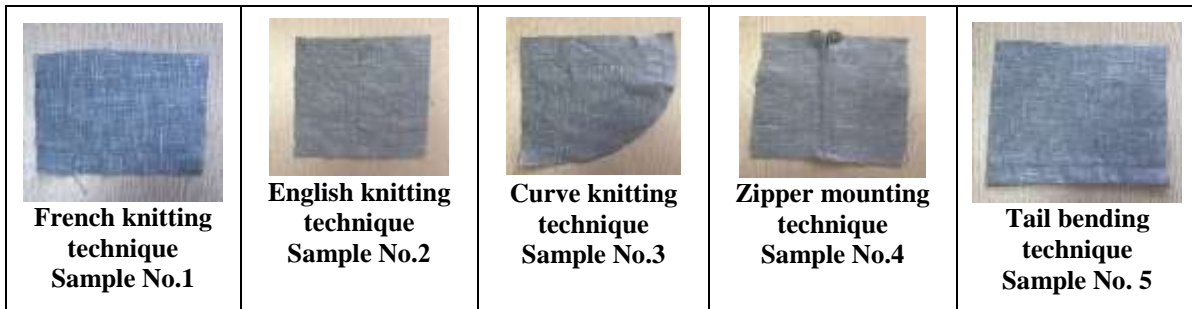
The experiments were carried out on four types of fabrics: linen - cotton - synthetic silk with textile composition. Specify the radiator for each type. 70-30% polyester cotton sewing thread uniform for all samples executed in different colors The samples were implemented on the industrial knitting machine Jockey needle and two needles were implemented techniques on fabrics

Some of the knitting techniques implemented on fabrics:

Rayon technology



Linen material techniques:



The previous figure shows the distribution of knitting efficiency test ratios for the techniques implemented for the total research samples and the difference between the samples produced by the research to test the knitting efficiency. The lowest percentage of knitting efficiency of the techniques implemented on rayon fabrics, which emphasizes the need for a good selection of raw materials and appropriate knitting techniques to ensure the quality of the final product

Results:

- 1- There are statistically significant differences between the results of the tests for the implemented samples
- 2 - The best raw materials used in the research is linen and followed by cotton for the techniques implemented research.
- 3 - The best sample in terms of the efficiency of knitting is a sample of linen technique knitting tail bending, followed by cotton technique English knitting.

4 - The best sample in terms of appearance is a sample of linen technique knitting tail bending followed by cotton with the same technique.

5 - the best sample in terms of tensile strength is a sample of linen knitting technique tail bending followed by English knitting.

6 - the best sample in terms of quality coefficient is a sample of linen technique knitting tail bending followed by cotton with the same technique.

Recommendations:

1- Conducting further studies on the different properties of fabrics to ensure the quality of the final product.

2- Conducting many researches in the field of clothing manufacturing and production quality

3 - Complete the study of the impact of the quality of knitting techniques on other types of fabrics.

4 - Do not use the techniques of knitting the installation of zipper and knitting English on synthetic fabrics such as satin and rayon as it gives an unsatisfactory appearance and tensile strength and weak knitting efficiency, which affects the quality of the product.

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